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IN THE CLAIMS:

The status and content of each claim follows:

1. (original) A method of manufacturing an electrolyte comprising:
coupling a substrate to a charged electrode; and
electrodepositing a polymeric electrolyte on said substrate.

2. (original) The method of claim 1, wherein said substrate comprises a conductive porous substrate.

3. (original) The method of claim 2, wherein said conductive porous substrate comprises a porous stainless steel substrate.

4. (original) The method of claim 2, wherein said porous substrate is electrically coupled to said charged electrode.

5. (original) The method of claim 2, wherein said electrodepositing a polymeric electrolyte further comprises:
disposing said porous substrate and said charged electrode in a polymeric electrolyte solution containing charged polymeric electrolyte particles; and
generating an electric field in said polymeric electrolyte solution;
wherein said generated electric field accelerates charged polymeric electrolyte particles to said porous substrate.

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6. (original) The method of claim 5, wherein said charged polymeric electrolyte particles further comprise perfluorosulfonate ionomer particles.
7. (original) The method of claim 6, wherein said perfluorosulfonate ionomer particles are deposited on said porous substrate by electrophoretic deposition.
8. (original) The method of claim 7, further comprising removing deposited perfluorosulfonate ionomer particles from an outer surface of said porous substrate.
9. (original) The method of claim 8, wherein said removal of deposited perfluorosulfonate ionomer particles comprises machining said particles with a blade.
10. (currently amended) The method of ~~claim 3~~ claim 1, wherein said electrodepositing a polymeric electrolyte further comprises:
disposing said porous substrate and said charged electrode in a polymeric electrolyte solution containing charged polymeric electrolyte ions; and
generating an electric field in said polymeric electrolyte solution;
wherein said generated electric field accelerates charged polymeric electrolyte ions to said porous substrate.
11. (original) The method of claim 10, wherein said charged polymeric electrolyte ions further comprise perfluorosulfonate ionomer ions.

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12. (original) The method of claim 11, wherein said perfluorosulfonate ionomer ions are deposited on said porous substrate by electrolytic deposition.

13. (original) The method of claim 12, wherein said perfluorosulfonate ionomer ions are deposited on an outer surface of said porous substrate.

14. (original) The method of claim 1, wherein said substrate comprises a non-conductive porous substrate.

15. (original) The method of claim 14, wherein said porous substrate is mechanically coupled to said charged electrode.

16. (currently amended) The method of claim 15 claim 14, wherein said electrodepositing a polymeric electrolyte further comprises:

disposing said porous substrate and said charged electrode in a polymeric electrolyte solution containing charged polymeric electrolyte particles; and
generating an electric field in said polymeric electrolyte solution;
wherein said generated electric field accelerates charged polymeric electrolyte particles to said porous substrate.

17. (original) The method of claim 16, wherein said charged polymeric electrolyte particles further comprise perfluorosulfonate ionomer particles.

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18. (original) The method of claim 17, wherein said perfluorosulfonate ionomer particles are deposited on said porous substrate by electrophoretic deposition.

19-54. (cancelled)

55. (new) A polymeric electrolyte manufactured by the method of claim 1.

56. (new) A fuel cell comprising:

an anode;

a cathode; and

a polymeric electrolyte disposed between said anode and cathode, said polymeric electrolyte manufactured by the method of claim 1.

57. (new) A method of manufacturing an electrolyte comprising electrodepositing a polymeric electrolyte on a substrate.

58. (new) A polymeric electrolyte manufactured by the method of claim 57.

59. (new) A fuel cell comprising:

an anode;

a cathode; and

a polymeric electrolyte disposed between said anode and cathode, said polymeric electrolyte manufactured by the method of claim 57.

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60. (new) The method of claim 57, wherein said substrate comprises an electrically-conductive, porous substrate.

61. (new) The method of claim 57, wherein said electrodepositing a polymeric electrolyte comprises:

disposing said substrate and a charged electrode in a polymeric electrolyte solution containing charged polymeric electrolyte particles; and

generating an electric field in said polymeric electrolyte solution with said charged electrode;

wherein said electric field deposits polymeric electrolyte particles to said substrate to form said electrolyte.

62. (new) The method of claim 61, wherein said charged polymeric electrolyte particles further comprise perfluorosulfonate ionomer particles.

63. (new) The method of claim 62, wherein said perfluorosulfonate ionomer particles are deposited on said substrate by electrophoretic deposition.

64. (new) The method of claim 63, further comprising removing deposited perfluorosulfonate ionomer particles from an outer surface of said substrate.

65. (new) The method of claim 61, further comprising removing deposited polymeric particles from an outer surface of said substrate.

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66. (new) A method of manufacturing an electrolyte comprising:
depositing charged polymeric electrolyte particles on a substrate by electrophoretic
deposition; and
subsequently, depositing additional charged polymeric electrolyte particles on said
substrate by electrolytic deposition.

67. (new) The method of claim 66, further comprising treating a surface of said
substrate by removing polymeric electrolyte particles between said depositing of charged
polymeric electrolyte particles and said depositing of additional charged polymeric electrolyte
particles.